

## DETECTION SYSTEM FOR DISK-BASED LABORATORY AND IMPROVED OPTICAL BIO-DISC INCLUDING SAME

## ABSTRACT OF THE DISCLOSURE

A detection system for use in optical disk-based devices for measuring the presence of an analyte in a sample. The detection system includes an analyte detector unit containing a primary detector which selectively reacts with analyte present in a sample to produce an amplification agent. The detection system further includes an amplification unit comprising a plurality of secondary detection agents which are each changeable between a negative and positive detection state. A fluid connection is provided between the analyte detector unit and amplification unit to provide reactive contact between the amplification agent and the plurality of detection agents. The amplification agent is capable of changing a plurality of detection agents between the negative and positive detection states to thereby amplify the measurable presence of the analyte.